Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraph number [0121], with the following rewritten paragraph:

[0001] Ninety six-well, non-tissue culture plates were coated with a peptide fragment of the invention (CB12-II), a negative control peptide (USP), or human fibronectin in PBS at various concentrations overnight at room temperature in the laminar flow hood. Preliminary studies revealed that binding increased as the number of cells increased in a range of 2.5-10 X 10^6 cells/ml. Optimal binding was obtained with concentration of 10 μg/ml for CB12-II. After the plates were washed once with PBS, additional protein binding sites in the plate wells were blocked with 5% heat-denatured BSA in PBS at 37° [please confirm] for 1 hour. Freshly isolated human chondrocytes were recovered for 2 hours as described above, and then added to on substrate-coated plates at the density of 1 X 10^7 cells/ml (0.5-2 X 10^6 cells/well) and incubated at 37°C for 1 hour. The chondrocyte suspensions were preincubated with 5 μg/ml anti-integrin blocking antibodies (from Chemicon): α1 (clone CB12), α2 (clone P1E6), α5, (clone D1D6), α 1(clone 6S6), α2 (cloneP4H9), α3 (clone 25EW), α2β1 (clone BHA2.1), and α5β1 (clone JBS5) at 4°C for 30 min prior to adding cells to the pre-coated wells for 1 hour at 37°C. Unattached cells were removed and the wells were washed gently twice with PBS. Bound cells were then quantitated by measuring total cellular hexosaminidase as described (36, 37). Sixty microliters of 7.5 mM p-nitrophenyl-N-acetyl-β-D-glucosaminide (Sigma) was added in 0.1 M sodium citrate buffer (pH 5.0) containing 0.5% ~~Triton X-100~~ TRITON X-100. After a 6-h incubation, 90 μl of 50 mM glycine, 5 mM EDTA, pH 10.4 was added, and the absorbance was read at 405 nm.

Please replace paragraph number [0123], with the following rewritten paragraph:

[0002] After a variable but designated incubation time, chondrocytes were washed twice with ice cold PBS and lysed in RIPA buffer (10 mM Tris/HCl, pH 7.4, 0.1% SDS, 1% NP-40, 0.1% sodium deoxycholate, 150 mM NaCl, 1 mM EDTA) containing freshly added proteinase and phosphatase inhibitors (1 mM PMSF, 10 μg/ml leupeptin, 1 μg/ml aprotinin, 1 mM Na_3VO_4, 1 mM NaF). Cell lysate was centrifuged and supernatant was collected. Protein

concentration was determined using Bradford's method. Equal amounts of protein were separated on 10% SDS-polyacrylamide gels under reducing conditions and were electrotransferred to a nitrocellulose membrane (Bio-Rad). To block nonspecific binding, the membranes were incubated in PBS containing 5% non-fat milk overnight at 4°C. The membranes were then probed with rabbit antibodies against phosphorylated ERK1/2, p38, and JNK1/2 (New England BioLabs). Antibodies were diluted 1:1000 in PBS containing 0.5% non-fat milk and reacted with the membrane for 1h at room temperature. Blots were washed with PBS containing 0.1% ~~Tween 20~~ TWEEN-20® three times, and incubated for 1h at room temperature with horseradish peroxidase (HRP)-conjugated goat anti-rabbit IgG (New England BioLabs) diluted 1:2000 with PBS-0.1% ~~Tween 20~~ TWEEN-20® for ECL system (Amersham). Then, the membranes were washed with PBS-Tween, and the membranes were detected with the addition of a 1:1 dilution of the ECL detection reagents (Amersham) 1 and 2 for 1 min. The solution was removed, and the membranes were wrapped in plastic wrap and exposed to film for various amounts of time. Total protein loading was demonstrated to be equal by detection of total ERK protein by antibody binding.